REMARKS

Claims 1-21 were pending and rejected. Claims 1, 2, 3, 4, 6, 10 and 19 are being amended. Claim 21 is being canceled. Claims 1-20 remain pending. Reconsideration of the application as amended is respectfully requested.

In paragraphs 3-5, the Examiner rejected claim 1 under 35 USC § 102 as unpatentable over Axberg. Axberg discloses a method for producing a coherent view of a storage network by a storage network manager using data storage device configuration information obtained from data storage devices. Claims 1 as amended requires,

> said SoD center system receives input of an SoD demand, and, thereafter, sends information to said SoD resource management processor on said storage subsystem to manage the device management table and the I/O port management table and thereby manage the usability of the storage devices and the available connections between the I/O ports and the storage devices, and if necessary sends information to the SoD agent on the host computer to request the operating system to manage the host I/O path setting table and thereby manage available connections between the host I/O controllers and the I/O ports.

The claimed system configures the storage network in response to a SoD demand. The claimed system is unrelated to obtaining a coherent view of the storage network, as taught by Axberg. Accordingly, Applicant respectfully submits that claim 1 is patentable over Axberg and respectfully requests that the rejection be withdrawn.

In paragraphs 6-26, the Examiner rejected claims 1-21 under 35 USC § 103 as obvious over Shank in view of Axberg. Claim 21 is being canceled. Accordingly, this rejection applies to remaining claims 1-20. Shank describes a virtual addressing technique for determining available I/O paths in a storage system and for routing storage requests via those determined I/O paths.

Claim 1 as amended recites,

> said SoD center system receives input of an SoD demand, and, thereafter, sends information to said SoD resource management processor on said storage subsystem to manage the device management table and the I/O port management

table and thereby manage the usability of the storage devices and the available connections between the I/O ports and the storage devices, and if necessary sends information to the SoD agent on the host computer to request the operating system to manage the host I/O path setting table and thereby manage available connections between the host I/O controllers and the I/O ports.

Claim 6 as amended recites,

a plurality of I/O ports providing an interface to said plurality of storage devices, each I/O port being uniquely connectable to one of a plurality of host I/O controllers on a user machine;

a device management store, in which a status of said plurality of storage devices is stored, and an I/O port management store, in which available connections between said plurality of I/O ports and said plurality of storage devices are stored; and

a storage resource management processor connectable via a network to an SoD center system, the storage resource management processor being capable of communicating with a SoD center system and of modifying the device management store and the I/O port management store; wherein

said storage management processor receives a demand for storage resources, the demand specifying one of said storage devices, updates said device management store to manage the status of one of the storage devices and said I/O port management store to manage the available connections between the one storage device and the user machine, and sends a management result responsive to said demand to the SoD center system;

updates to at least one of a plurality of paths connecting to storage resources allocated from at least one of said plurality of storage devices are defined to an operating system of said user machine; and

said SoD center system is remote from said plurality of storage devices and from said user machine.

Claim 10 as amended recites,

receiving at said host an I/O path setting request from said center system, said I/O path setting request specifying a path to a storage resource in said storage subsystem allocated for use by said host, said path defining a unique communication channel from one of a plurality of host I/O controllers on said host to one of a plurality of I/O ports on said storage subsystem;

requesting an operating system resident in said host to update an I/O path setting in an I/O path setting table based upon said I/O path setting request;

receiving an update result from said operating system; and

sending a setting result to said center system based upon said update result, thereby enabling the center system to manage accessibility of the storage resource by the host.

Claim 19 as amended recites,

> code that receives at said host an I/O path setting request from said center system, said I/O path setting request specifying a path to a storage resource in said storage subsystem allocated for use by said host, said path defining a unique communication channel from one of a plurality of host I/O controllers on said host to one of a plurality of I/O ports on said storage subsystem;
>
> code that requests an operating system resident in said host to update an I/O path setting in an I/O path setting table based upon said I/O path setting request;
>
> code that receives an update result from said operating system;
>
> code that sends a setting result to said center system based upon said update result, the codes thereby enabling the center system to manage accessibility of the storage resource by the host.

With reference to claim 1 (paragraph 8), as recognized by the Examiner, Shank does not teach a SoD center system that is remote from the storage subsystem and the host, that the storage subsystem is capable of managing the usability of the storage resources by the host computer, and that the storage subsystem is capable of managing accessibility of the storage devices by the host computer. The Examiner then asserts that Axberg provides these elements. As stated above, Axberg relates to determining the coherent view of a network, not remote configuration of a network. The Examiner points to col. 3 lines 15-26 of Axberg to illustrate the management of storage resource usability. However, the language identified merely illustrates that local agents are capable of gathering information to generate the topological view of the network. The language does not indicate that the local agents control usability of the storage resources. The Examiner points to col. 3 lines 1-9 to show that the system is capable of managing storage resource accessibility. However, the language identified merely illustrates that the local agents gather data to generate the topological view of the network. The language does not indicate that the local agents control accessibility of the storage resources. Other differences between the claim 1 and the cited art also exist. Accordingly, Applicant respectfully submits that claim 1 is patentable over Shank in view of Axberg and respectfully requests that the rejection be withdrawn.

With reference to claim 6 (in paragraph 13), the Examiner identifies elements 102 and 104 to illustrate a plurality of ports. However, element 102 is a server/host and element 104 is

the storage subsystem. Neither element illustrates a plurality of ports in a storage subsystem. The Examiner identifies col. 4 lines 1-14 to illustrate the storage resource management processor. However, col. 4 lines 1-14 illustrate that the computer 102 is made of computer components including a CPU, memory, disk driver and hardware adapter driver. The language does not indicate that the storage subsystem includes a storage resource management processor that is "connectable via a network to an SoD center system, the storage resource management processor being capable of communicating with a SoD center system and of modifying the device management store and the I/O port management store," as recited in claim 6. The Examiner asserted that col. 2 lines 18-28 and col. 4 lines 24-27 illustrates updating device management store and the I/O port management store. However, the identified language merely illustrates the virtual mapping of virtual addresses to physical addresses. The language does not illustrate the defining of storage device usability, the physical mapping of I/O ports to storage devices, etc. Other differences between claim 6 as amended and the cited art also exist. Accordingly, Applicant respectfully submits that claim 6 is patentable over Shank in view of Axberg and respectfully requests that the rejection be withdrawn.

With reference to claims10 and 19, the Examiner indicated that they are obvious for the same reasons as claim 6. Applicant respectfully submits that claim 10 and 19 are patentable over Shank in view Axberg for at least the same reasons and respectfully requests that the rejections be withdrawn.

Further, Axberg and Shank belong to nonanalogous art areas. Shank solves the problem of virtual addressing to storage devices. Axberg solves the problem of topological network view determination. Accordingly, one skilled in the art would not combine them.

Accordingly, for at least the above reasons, Applicant respectfully submits that independent claims 1, 6, 10 and 19 are patentable over Shank in view of Axberg. Similarly, for at least these reasons, Applicant respectfully submits that claims 2-5, 7-9, 11-18 and 20 are patentable as dependent on these independent claims. Applicant respectfully requests that the rejection of claims 1-20 be withdrawn.

Accordingly, Applicant respectfully submits that claims 1-20 are patentable over Shank in view of Axberg and respectfully requests that the rejections be withdrawn.

If the Examiner has any questions or needs any additional information, he is invited to contact the undersigned.

Respectfully submitted,

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By _______________

Squire, Sanders & Dempsey L.L.P.
600 Hansen Way
Palo Alto, CA 94304-1043
Telephone (650) 856-6500
Facsimile (650) 843-8777

Marc A. Sockol
Attorney for Applicants
Reg. No. 40,823

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Cathi L.G. Thoorsell